

EXHIBIT B

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

UNITED STATES OF AMERICA)
EX REL. KENNETH W.)
ABBOTT; KENNETH W.)
ABBOTT, INDIVIDUALLY; AND)
FOOD & WATER WATCH, INC.;)
)
 Plaintiffs,) CIVIL ACTION
)
v.) NO. 4:09-CV-01193
)
BP EXPLORATION AND) JURY DEMANDED
PRODUCTION, INC., ET AL.;)
)
 Defendants.)

ORAL AND VIDEOTAPED DEPOSITION OF
MICHAEL E. SAWYER
DECEMBER 2, 2011

ORAL AND VIDEOTAPED DEPOSITION OF MICHAEL E. SAWYER,
produced as a witness at the instance of the DEFENDANTS,
BP, P.L.C.; BP AMERICA, INC.; BP EXPLORATION &
PRODUCTION, INC.; AND BP PRODUCTS NORTH AMERICA, INC.,
and duly sworn, was taken in the above-styled and
numbered cause on DECEMBER 2, 2011, from 9:06 a.m. to
6:55 p.m., before Donna L. Garza, CSR, in and for the
State of Texas, reported by machine shorthand, at the
law offices of Fulbright & Jaworski, LLP, 1301 McKinney,
Suite 5100, Houston, Texas, pursuant to the Federal
Rules of Civil Procedure and the provisions stated on
the record or attached hereto; that the deposition shall
be read and signed before any notary public.

1 And then on Item 3, we have nothing
2 further to produce to you.

3 MR. MACE: All right. Ready to begin?

4 MICHAEL E. SAWYER,
09:07 5 having been first duly sworn, testified as follows:

6 E X A M I N A T I O N

7 BY MR. MACE:

8 Q. Good morning, Mr. Sawyer.

9 A. Good morning.

09:07 10 Q. My name is Damond Mace. Nice to meet you.
11 Let's see if there are some things we can agree on.

12 The United States Government is an agency
13 that regulates offshore oil and gas production, correct?

14 A. And you're referring to what used to be MMS --

09:08 15 Q. Yes.

16 A. -- BOEMRE and is now --

17 Q. Right.

18 A. -- BSEE or something to that effect?

19 Q. And that's just -- I want to get some
09:08 20 terminology correct as we go forward.

21 A. I understand.

22 Q. So there have been some name changes as you
23 point out in the recent years, but if we use the term
24 "Minerals Management Service" or "MMS," you'll know what
09:08 25 I'm talking about, right?

1 A. Yes, sir.

2 Q. All right. And I'm including BOEMRE and BSSE
3 in that. All right?

4 A. Agreed.

09:08 5 Q. Okay. And you know that MMS has been
6 regulating offshore oil and gas platforms for many
7 decades?

8 A. That's my understanding, yes, sir.

9 Q. And there's a very lengthy and extensive
09:08 10 series of regulations that apply to offshore oil and gas
11 platforms?

12 A. That's correct.

13 Q. For example, there's many regulations that
14 apply to getting permission to install an offshore oil
09:09 15 and gas platform?

16 A. Under part 250, I'm familiar with some of
17 those, yes, sir.

18 Q. And there's many regulations that apply to the
19 Texas safety equipment you need to have on an offshore
09:09 20 platform?

21 A. There are provisions in the regulations for
22 that, yes, sir.

23 Q. There's a number of regulations on the
24 inspections and testing that have to be done on the
09:09 25 safety equipment for an offshore oil and gas facility?

1 A. As I sit here this morning, I'm -- I don't
2 recall those, but I have -- I have nothing to rebut that
3 with.

4 Q. Do you know the total number of different
09:09 5 regulations that apply to an offshore oil and gas
6 facility?

7 A. No, sir.

8 Q. How many do you think there are?

9 A. I -- I don't have any --

09:09 10 Q. No idea?

11 A. -- assessment of that, no, sir.

12 Q. All right. Under terminology, when I use the
13 term "Atlantis facility" today, I'm referring to all of
14 Atlantis, the floating structure, the subsea structure,
09:09 15 everything, all the physical structures and systems that
16 make up Atlantis, all right?

17 A. Agreed.

18 Q. When I say "Atlantis platform," I'm referring
19 to the floating structure that's moored in the Gulf of
09:10 20 Mexico, all right?

21 A. What -- what we would consider topsides, is
22 that --

23 Q. Topsides and the hull.

24 A. Okay.

09:10 25 Q. All right. And when I use the phrase

1 "deepwater," I'm referring to platforms that are in a
2 thousand foot deep or more water, all right?

3 A. Agreed.

4 Q. Okay. Now, it's important you understand my
09:10 5 questions today. If you don't, will you let me know?

6 A. Yes, sir.

7 Q. Good. Because if you answer the question, the
8 judge, the jury and I will all assume that you
9 understood it, fair enough?

09:10 10 A. That's seems fair.

11 Q. Okay. If you need a break at any time, just
12 let me know, all right?

13 A. Agreed.

14 Q. But I do ask you to give me about a
09:10 15 five-minute warning so we don't have to break in a line
16 of questioning, all right?

17 A. Also agreed.

18 Q. Can we agree that nobody is an expert in
19 everything?

09:10 20 A. I think I could agree with that, sir.

21 Q. Okay. And if someone has decades of
22 experience in a specific area at issue and another
23 person does not, it's usually better to defer to the
24 person with decades of experience, right?

09:11 25 A. Well, that -- I guess that's a difficult to --

1 the case?

2 A. Mr. Perry.

3 Q. Okay. And do you know approximately what
4 month and year that was?

09:17 5 A. I could go back and find that for you, but
6 sitting here this morning, no, sir, I don't.

7 Q. Okay. Well, you're going to have a chance to
8 look over the transcript and make an errata sheet. So
9 if you could give me that information or just send it
09:18 10 separately to your attorney and give it to me, that
11 would be fine.

12 A. I'd gladly do that.

13 Q. Thank you.

14 Sir, have you ever designed a production
09:18 15 safety system for a deepwater oil and gas production
16 platform?

17 A. Designed --

18 Q. Yes, sir.

19 A. -- a production safety system?

09:18 20 Q. Correct.

21 A. You're in -- with that, you're asking me have
22 I done design work?

23 Q. Have you ever designed a production safety
24 system for a deepwater oil and gas production platform?

09:18 25 A. I've never designed any of the production

1 safety systems that would go in a Production Safety
2 System Application.

3 Q. Okay.

4 A. None of the equipment.

09:18 5 Q. All right. Whether for the deepwater or for
6 any oil and gas production platform?

7 A. Offshore platforms, no, I have not done any
8 design work, no.

9 Q. So, similarly, you have not designed the hull
09:18 10 or structure for a floating deepwater oil and gas
11 production platform?

12 A. That's correct.

13 Q. You've not designed the subsea pipelines and
14 subsea equipment for a deepwater oil and gas production
09:19 15 platform?

16 A. That's correct.

17 Q. Have you published any articles or given any
18 speeches or presentations on any of the MMS production
19 safety system regulations contained in 30 CFR 250, the
09:19 20 800 series?

21 A. No, sir. Again, going through what I've --
22 what I can recently remember, the answer would be no.
23 No, sir.

24 Q. Okay. Similar question. Sir, have you
09:19 25 published any articles or given any speeches or

1 A. Now, when you -- when you ask me about 14J,
2 while I probably can tell you that I haven't done
3 anything that focused solely on 14J, I've given numerous
4 presentations on hazard analysis.

09:23 5 Q. Okay. But nothing specific to 14J?

6 A. Nothing that dealt solely with 14J.

7 Q. Well, that dealt in part with 14J?

8 A. Well, that's what I'm -- I'm trying to explain
9 to you, sir, is that it's difficult to talk about hazard
09:23 10 analysis without hitting some of 14J.

11 Q. I understand what you're saying. All right.

12 Have you published any articles or given
13 any speeches or presentations on the Outer Continental
14 Shelf Lands Act or any of its regulation?

09:23 15 A. No, sir.

16 Q. And I take it you've not taken any college
17 classes or received any degrees or certifications in any
18 of the MMS regulations?

19 A. No, sir.

09:23 20 Q. You've not taken any college classes or
21 received any degrees or certifications in API
22 Recommended Practice 14C or 14J?

23 A. Nothing that would have that as the
24 curriculum.

09:24 25 Q. And you've not taken any college classes or

1 received any degrees or certifications in the Outer
2 Continental Shelf lands Act?

3 A. I thought that's what you just asked me.

4 Q. Well, before I asked about the MMS
09:24 5 regulations. Now I'm asking about the act itself.

6 A. Oh, okay. I apologize. No, sir.

7 Q. Okay. So your answer is the same for both?

8 A. That's correct.

9 Q. All right. Now, you were first contacted -- I
09:24 10 know you were going to look up the month for me, but do
11 you recall it was in '09 that you were first contacted
12 about this case?

13 A. That -- that could be. That could be right.

14 Q. All right. Now, prior to your work on this
09:24 15 case, had you ever even read any of the MMS regulations
16 that apply to offshore oil and gas platforms?

17 A. Yes, sir.

18 Q. Okay. When? Let me focus my question for you
19 because I want to take each one separately. So let me
09:25 20 ask you specifically with respect to the MMS production
21 safety system regulations contained in the 800 series of
22 30 CFR 250, had you ever even read any of those
23 regulations in the 800 series before this case?

24 A. You know, I probably did back when I was doing
09:25 25 what I described earlier about the 14C with the unit Ops

1 and stuff, but I cannot give you a date and I -- as I
2 sit here this morning, I can't tell you that, yes, I --
3 I explicitly recall doing that.

4 Q. So you may have, but you can't specifically
09:25 5 say that you did?

6 A. That's correct.

7 Q. And there's certainly nothing -- you weren't
8 studying that for any purpose, to the extent you looked
9 at it was only in connection with trying to translate
09:26 10 14C into some other type of an analysis for a different
11 onshore facility?

12 A. That would be a pretty accurate way of
13 describing it.

14 Q. So prior to your work on this case, have you
09:26 15 ever read the 900 series of 30 CFR 250 that deal with
16 the platform structure regulation?

17 A. If I had, I don't recall.

18 Q. Okay. So not to the best of your knowledge?

19 A. That's correct.

09:26 20 Q. And, finally, with respect to the 1,000 series
21 in 30 CFR 250, have you ever read any of the pipeline
22 regulations in that series prior to your work in this
23 case?

24 A. None of the pipeline, sir.

09:26 25 Q. Okay. So my answer -- the answer to my

1 question is, no, you hadn't?

2 A. That's correct.

3 Q. And have you ever held yourself out as an
4 expert in the meaning of MMS regulations with respect to
09:26 5 these three series that we've talked about, the 800
6 series, or the 900 series or the 1,000 series?

7 A. Okay. When -- please help me with your
8 question. Held myself out as an expert, you mean, for
9 example, advertise my services?

09:27 10 Q. Either advertisement or on your CV. I mean, I
11 know you say fire safety and you say certain other
12 things on your CV. But have you ever held yourself out
13 in any way, whether it's on your CV, on a website, in
14 advertising, in speeches that you give, anywhere, that
09:27 15 you're an expert -- held yourself out as an expert in
16 the meaning of these MMS regulations?

17 A. No, sir.

18 Q. And I take it you've never given any opinions
19 on the meaning of the MMS regulations before?

09:27 20 A. Before this case, no, sir, that's --

21 Q. No, you haven't?

22 A. That's correct.

23 Q. Okay. And you've never -- I think you've
24 already told me you don't have any certifications or
09:27 25 training on the meaning of the MMS regulations?

1 A. That's correct.

2 Q. Okay. Now, sir, since you have never worked
3 with the MMS, these specific series, MMS regulations
4 before -- I'm talking about the 800 series, the 900
09:27 5 series, the 1,000 series -- and you don't hold yourself
6 out as an expert in the meaning of those regulations,
7 and, in fact, you can't even say that you ever read them
8 before you started working on this case. And given that
9 MMS has been drafting and interpreting those regulations
09:28 10 for decades, you would defer to the MMS on the meaning
11 and application of its regulations, wouldn't you?

12 A. I consider myself competent enough to be able
13 to read the regulation and understand it.

14 Q. Okay. But my question was a different one.
09:28 15 It was whether or not you would defer to them since,
16 again, we're back to the mile deep. MMS has been
17 drafting these and interpreting these and applying these
18 for decades. You've never read them before you came to
19 this case. You would defer to them on what the meaning
09:28 20 and applications of the regs were, wouldn't you?

21 A. No, sir, because the MMS regs, OSHA regs, EPA
22 regs, whatever we want to talk about this morning, is
23 essentially a compilation of lessons learned and
24 previously developed regs by other organizations, and
09:29 25 they're basically a set of minimum guidelines. They're

1 and we -- nobody knew. So Mr. Perry had to guess at
2 what you meant, I had to guess what you meant,
3 Mr. Hunter wanted to know. Mr. Perry and I should say,
4 "Go talk to Mr. Sawyer," right?

09:33 5 A. If it's one individual writing something,
6 perhaps that would be the best way.

7 Q. Now, Atlantis is a floating deepwater offshore
8 oil and gas platform, correct?

9 A. That's correct.

09:33 10 Q. And I looked through your resume and
11 background materials, but it's accurate, you've never
12 been an operator of any offshore oil and gas platform?

13 A. That's correct.

14 Q. Okay. You've never worked on any offshore oil
09:33 15 and gas platform?

16 A. That's correct.

17 Q. Have you ever even been on a floating
18 deepwater oil and gas platform?

19 A. No, sir.

09:33 20 Q. Have you been on any deepwater -- any offshore
21 oil and gas platform?

22 A. No, sir.

23 Q. Have you ever been in -- prior to working on
24 this case, did you have any experience with Smart Plan
09:34 25 Foundation?

1 in a project or matter involving Naval Architects or
2 Naval Classification Societies?

3 A. No, sir.

4 Q. You're a registered PE in the state of Texas
09:37 5 in the area of fire protection?

6 A. That's correct.

7 Q. Okay. You're not a registered PE in Texas in
8 any other area besides fire protection?

9 A. No, sir. Fire protection was the closest to
09:37 10 my line of expertise.

11 Q. Okay. And you've not made any in-depth
12 investigation of the fire protection system on Atlantis,
13 correct?

14 A. That's correct.

09:37 15 Q. And you're not going to opine that there are
16 any defects in the fire protection system on Atlantis,
17 correct?

18 A. At this point I don't have any information
19 that would lead me to that.

09:38 20 Q. You're not a mechanical engineer?

21 A. No, sir.

22 Q. You're not an electrical engineer?

23 A. No, sir.

24 Q. You're not a structural engineer?

09:38 25 A. No, sir.

1 Q. You're not a civil engineer?

2 A. No, sir.

3 Q. You're not a control system engineer?

4 A. No, sir.

09:38 5 Q. Have you ever been a member of the National
6 Academy of Engineers?

7 A. No, sir.

8 Q. Have you ever been a member of the Texas
9 Society of Professional Engineers?

09:38 10 A. No.

11 Q. You're not a chemical engineer?

12 A. No, sir.

13 Q. Have you ever been a member of any technical
14 subcommittee of the Offshore Operations Committee?

09:38 15 A. No, sir.

16 Q. Do you know what the Offshore Operations
17 Committee is?

18 A. No, sir.

19 Q. Have you ever been a member of any of the
09:38 20 committees that wrote any of the API Recommended
21 Practices?

22 A. No, sir.

23 Q. Have you ever been a member of any of the
24 National Research Council Committees providing advice to
09:38 25 MMS on offshore oil and gas issues?

1 A. No, sir.

2 Q. Have you ever written any textbooks on
3 offshore oil and gas production facility design?

4 A. No, sir.

09:39 5 Q. Have you ever taught any college courses on
6 oil and gas production facility design offshore?

7 A. No, sir.

8 Q. You've never filed a Production Safety System
9 Application with the MMS?

09:39 10 A. That's correct.

11 Q. You've never filed a platform application with
12 the MMS?

13 A. That's correct.

14 Q. You've never filed a pipeline application with
09:39 15 the MMS?

16 A. That's correct.

17 Q. You've never reviewed a SAFE chart to ensure
18 it meets regulatory requirements?

19 A. For meeting regulatory requirements, no, sir.

09:39 20 Q. Okay. And do you know what SAFE stands for,
21 sir?

22 A. Safety Analysis Function Evaluation.

23 Q. You've never trained MMS personnel?

24 A. That's correct.

09:39 25 Q. And you've never trained any industry

1 A. Again, what I did is I looked at the
2 information that was available and the Barry Duff
3 spreadsheets. I segmented that data into various
4 subfilings that had been listed and segregated drawings
09:47 5 from welding practices from procedures and then looked
6 at what BP had said the status of that document, whether
7 we're talking about a procedure or drawing was at that
8 time and what needed to be done.

9 Q. Anything else?

09:48 10 A. Other than what I summarized in my May '09
11 report, that would be it, sir.

12 Q. All right. Sir, is it accurate that you have
13 not done any physical testing of any component, part or
14 system that is part of the Atlantis facility?

09:48 15 A. Physical testing, that would be correct.

16 Q. It's also accurate that you have not done any
17 physical inspection of any component, part or system
18 that is part of the Atlantis facility?

19 A. That's correct.

09:48 20 Q. Is it accurate that you've not reviewed any of
21 the testing or inspection records for the Atlantis
22 facility?

23 A. When -- okay. Now, I'm going to ask you to,
24 please, clarify that for me. Testing records?

09:48 25 Q. Yes. Let me go through some of them. Is it

1 done on any of the components of Atlantis?

2 A. When you say -- well, let me -- when you say
3 looked at any of it, I'm not sure if you mean have I
4 just seen it or have I analyzed it.

09:51 5 Q. More analyzed, studied it.

6 A. Okay. I have -- at this point, I have not
7 analyzed anything to that extent.

8 Q. In terms of the systems integration testing
9 that was done on Atlantis, have you done anything to
09:52 10 analyze that?

11 A. At this point, no, sir.

12 Q. The integration acceptance testing that was
13 done on Atlantis, have you done anything to look into
14 that?

09:52 15 A. So far as an analysis or an evaluation, no,
16 sir. Not at this point.

17 Q. In terms of the dynamic testing that was done
18 on Atlantis before first oil, have you done anything to
19 look into that?

09:52 20 A. No analysis at this point, sir.

21 Q. In terms of the commissioning testing that was
22 done on Atlantis before first oil, have you done
23 anything to look into that?

24 A. Other than -- there was a -- I'm pretty sure I
09:52 25 included it in here. It's what's referred to as MS-7.

1 Q. Yep.

2 A. It looked at what was available for first oil,
3 and it's -- I made a concise spreadsheet regarding my
4 review at -- at that point.

09:53 5 Q. Yeah. But that has nothing to do with the
6 commissioning testing that was performed, correct?

7 A. I'm sorry. I misunderstood your question.

8 Q. Yeah. My question was: Is it accurate that
9 as part of your work on this matter, you have not looked
09:53 10 into any of the commissioning testing that was done on
11 Atlantis?

12 A. So far as a detailed analysis, no, sir.

13 Q. And it's also accurate that you've not looked
14 into any of the simulation testing that was done prior
09:53 15 to first oil?

16 A. That's correct.

17 Q. Have you made any investigation of the
18 verification that the MMS personnel made during the
19 fabrication of the Atlantis facility that the
09:54 20 construction was being done in accordance with the
21 design and drawing?

22 A. Please say that again. That was a rather
23 long --

24 Q. I agree. Sir, have you made any investigation
09:54 25 of the verification that MMS personnel made during the

1 fabrication of the Atlantis facility that the
2 construction was being done in accordance with the
3 design and drawings?

4 A. As I sit here this morning, I don't recall
09:54 5 seeing any of that information at this point.

6 Q. And same question. I'm just going to use GVA
7 instead of MMS.

8 But the question is, sir, have you made
9 any investigation of the verification that GVA made
09:54 10 during the fabrication of the Atlantis facility that the
11 construction was being done in accordance with the
12 design and drawings?

13 A. I haven't seen that. If it's been produced, I
14 haven't seen it, sir.

09:54 15 Q. And same question with BP personnel. Sir,
16 have you made any investigation of the verification that
17 BP personnel made during the fabrication of the Atlantis
18 facility that the construction was being done in
19 accordance with the design and drawings?

09:55 20 A. And, again, I don't recall any particular
21 documents that I've seen that would address that.

22 Q. Last one on this topic, ABS inspectors. Sir,
23 have you made any investigation of a verification that
24 ABS inspectors made during the fabrication of the
09:55 25 Atlantis facility that the construction was being done

1 in accordance with the design and drawings?

2 A. I haven't seen anything to that extent. I do
3 know there was an E-mail where ABS was essentially
4 telling BP that validation or -- or of the design was
09:55 5 the responsibility of the owner and that's something
6 they wouldn't be doing.

7 Q. So in terms of what ABS inspectors actually
8 did to verify the design that the fabrication was being
9 done in accordance with the design and drawings, you
09:56 10 haven't looked into that?

11 A. I don't recall documents to that effect.

12 Q. Okay. Now, you said you've analyzed some of
13 the system handover packages. I think you told me they
14 were all subsea, correct?

09:56 15 A. At this point, yes, sir.

16 Q. What was your purpose in looking at those?

17 A. Again, first of all, to see what -- what
18 materials were initially handed over prior to first oil.

19 Q. Anything else?

09:56 20 A. Because of the volume of data that I've had to
21 go through, that was simply my first -- first iteration
22 that was handover documents to try to make some initial
23 determinations like that and decide what points did I
24 think were initially important.

09:57 25 Q. Okay. Let me -- let me understand your

1 as -- as I stated earlier, as an engineer, I rely
2 totally on my documentation.

3 Q. All right. But in terms of any time that they
4 wanted to safely shut down Atlantis, they've always been
10:27 5 able to do so, correct, as far as you know?

6 A. Like I said, the incident I was just talking
7 about is where they had a dual communications failure,
8 which would probably impede their ability to -- to shut
9 down. Now, you're quantifying this by saying "safely
10:28 10 shut down," and I guess we probably -- I need to make
11 sure I understand exactly what you mean by -- by "safely
12 shut down."

13 Q. Yeah. First of all, let me explore your
14 incident you're talking about where you're
10:28 15 characterizing it as a dual communications failure. The
16 fact is nobody was trying to shut down the wells during
17 that time period, correct?

18 A. From the best of what I can remember about the
19 incident, that's correct.

10:28 20 Q. So, let me ask you a better question, sir.
21 Isn't it a fact that you're not aware of a single time
22 that wanted to shut down Atlantis and they haven't been
23 able to do so?

24 A. As I sit here this morning, I haven't found
10:28 25 any documentation that -- whether it's an incident

1 report, or whatever, that outlines such a scenario.

2 Q. Can we agree that if a facility has been shut
3 down safely dozens of times over several years without
4 any problems, it certainly gives you some level of
10:29 5 confidence that it will be able to do it in the future
6 as well, correct?

7 A. I'm sorry. You just -- this is a
8 hypothetical --

9 Q. Yes, sir.

10:29 10 A. -- that you're asking me?

11 Q. Right.

12 A. Well, I -- with a hypothetical question like
13 that, I -- it's impossible for me to answer something
14 based on a mere hypothetical. If there's actual
10:29 15 documentation that says, yes, it's safely shut down over
16 a number of periods and with testing, then that's
17 something I can review as an engineer.

18 Q. Right. And I'm asking you to assume that
19 fact, which I'm allowed to do. I'm allowed to ask you
10:30 20 hypotheticals. So, I want you to assume the fact that
21 Atlantis has been safely shut down dozens of times over
22 four years plus and never had a problem doing it.

23 That certainly gives you some level of
24 confidence that it will be able to do it in the future
10:30 25 as well, correct?

1 A. No particular aspects or details of it, no,
2 sir.

3 Q. Have you done anything to look into the
4 regular inspections that MMS makes of the Atlantis
10:36 5 facility?

6 A. You're asking about the periodic
7 walk-throughs, the onboard --

8 Q. Yeah.

9 A. -- inspections?

10:37 10 Q. Right, since first oil.

11 A. Since first oil?

12 Q. Yeah.

13 A. I don't recall seeing any of that information
14 at this point.

10:37 15 Q. Have you done anything to look at the regular
16 inspections that the Coast Guard does on the Atlantis
17 facility?

18 A. No, sir, not the Coast Guard.

19 Q. What is a TLP planned for?

10:37 20 A. It's probably a -- is that a tension leg?

21 Q. Can you describe how that's different than
22 Atlantis?

23 A. No, sir, I can't. I'm not a designer.

24 Q. What is a Spar, S-P-A-R?

10:37 25 A. Again, another type of floating platform.

1 Mr. Sawyer, do you know approximately how
2 many component parts make up the Atlantis facility?

3 A. No, sir, I don't. I can't give you an
4 accurate quantifiable number, no, sir.

10:45 5 Q. Can you give me a ballpark?

6 A. No, sir.

7 Q. Do you agree with hundreds of thousands, if
8 not million?

9 A. Components? It depends on how we want to
10:46 10 break the component down.

11 Q. So, do you think hundreds of thousands is a
12 fair number, or no?

13 A. Again, it would be based on your definition of
14 a "component," but there's -- there's got to be
10:46 15 thousands.

16 Q. Okay. Now, I read your report and I didn't
17 see anything on this, but I just want to be sure.
18 You're not saying that a single valve at the Atlantis
19 facility was installed backwards, correct?

10:46 20 A. I can't point to a valve and tell you that it
21 was installed backwards on the Atlantis facility, no,
22 sir.

23 Q. To the best of your knowledge, none of them
24 were installed backwards?

10:46 25 A. That I -- as I'm sitting here this morning

1 that I know of, that's correct.

2 Q. And again, I didn't see any opinions in the
3 report; but just to be sure: Have you reached any
4 opinion that any specific component part was not built
10:46 5 and installed properly?

6 A. Well, my -- my opinion is that the engineering
7 was done improperly, which would include many of the
8 components and systems.

9 Q. My question to you is differently.

10:47 10 A. Okay.

11 Q. I didn't see anything in your report. Are you
12 saying that any specific component part was built and
13 installed improperly?

14 A. Your -- your question is asking me did I point
10:47 15 out a particular component in my report? Is that what
16 you're asking me, sir?

17 Q. I'm asking you: Are you going to give any
18 opinions at trial that any component part on the
19 Atlantis facility was built and installed improperly?

10:47 20 A. I don't have information at this point that I
21 can point to a particular component other than the
22 drawings that have been made available that show that
23 they weren't as-built or they were not approved by
24 professional engineers.

10:48 25 Q. Let me ask you some specifics. You do not

1 contend that any specific pipe, tank, valve, or other
2 component part is of improper wall thickness, size, or
3 capacity, correct?

4 A. Again, other than the drawings not providing
10:48 5 accurate documentation that proper engineering was done,
6 I have not seen information at this point that would
7 tell me what you just described so far as wall thickness
8 and very unique aspects like that, sir.

9 Q. So, the answer to my question is, no, to the
10:48 10 best of your knowledge, you've not seen anything that
11 would indicate that any specific pipe, tank, valve, or
12 other component part is of improper wall thickness,
13 size, or capacity?

14 A. At this point, that would be correct.

10:49 15 Q. And the same thing: At this point, you do not
16 contend that any of the tubing pressures were improperly
17 determined?

18 A. Yes. I do not have enough information to make
19 a determination like that.

10:49 20 Q. You do not contend that any of the design
21 working pressures or maximum allowable working pressures
22 were improperly determined?

23 A. Again, I haven't seen information to that
24 extent; nor have I investigated calculations that would
10:49 25 be based on maximum allowable working pressures.

1 Q. You do not contend that any of the electrical
2 hazardous area classifications were improperly done?

3 A. Other than the fact that none of them were
4 approved by licensed engineers.

10:50 5 Q. Nothing else?

6 A. That comes to memory right now. I'm not -- I
7 don't recall if those were -- any of those were as-built
8 or not. I do remember that they were not approved by
9 engineers.

10:50 10 Q. And I'm really trying to put that on the side
11 right now. We're going to talk about those opinions in
12 a minute: Not approved by engineers, not as-built.
13 Okay? We're going to talk about that, I assure you.

14 But in terms of the end result, what
10:50 15 actually got built and put in place out at Atlantis, you
16 don't contend that any of the electrical hazardous area
17 classifications were improperly done?

18 A. As far as the physical arrangement of the
19 electrical classification areas, no. I haven't
10:50 20 investigated that aspect of it.

21 Q. Similarly, you don't contend that any of the
22 electrical schematics were improperly done?

23 A. Based on what you had just told me about
24 engineering approval, again, it would be the same
10:51 25 answer. I haven't done any of those detailed

1 evaluations.

2 Q. And you do not contend that any of the design
3 or schematics for the fire and gas detection systems
4 were improperly done?

10:51 5 A. No, sir.

6 Q. And you don't contend that any of the high or
7 low pressure shut-in sensors were improperly located?

8 A. Well, there was a -- a recent notation I saw
9 that subsea probes had not been put in at one point.
10:52 10 Well, I don't know the connection with the question you
11 just asked me to that. I haven't investigated that yet.

12 Q. Did you contend the subsea probes have
13 anything to do with the high or low pressure shut-in
14 sensors?

10:52 15 A. I don't know that at this point, no, sir.

16 Q. Okay. So, my question to you was: You
17 don't -- you do not contend that any of the high or low
18 pressure shut-in sensors were improperly located?

19 A. Not at -- not in my report, sir. Not at this
10:52 20 time.

21 Q. Okay. And again, I didn't see any opinions in
22 your report on this; but to be sure, is there any
23 specific component part that you believe was not
24 designed properly?

10:52 25 A. I didn't -- I didn't detail things like that

1 in my report, sir, no, sir.

2 Q. No opinions on that, correct?

3 A. No, sir, not at this time.

4 Q. Do you know approximately how many total
10:52 5 number of drawings have been involved in the Atlantis
6 project?

7 A. No, sir.

8 Q. If I told you it was more than 7,000, does
9 that sound about right to you?

10:53 10 A. I wouldn't have anything to rebut that type of
11 number.

12 Q. And out of those many thousands of drawings,
13 can you identify any specific drawing that you have
14 determined that the design shown would have been
10:53 15 different if only a registered PE had stamped it?

16 A. Say that again, please. I'm sorry.

17 Q. Yes, sir. Out of these thousands of drawings
18 that were involved with Atlantis, can you identify any
19 specific drawing that you have determined that the
10:53 20 design shown would have been different if only a
21 registered PE had stamped it?

22 A. I can't point to a particular drawing this
23 morning, no, sir.

24 Q. And focusing on the production safety system
10:54 25 for a minute for a few questions, you don't claim that

1 A. That's correct.

2 Q. And then under (5), the first sentence says:
3 "Certification that the design for the mechanical and
4 electrical systems to be installed were approved by
10:58 5 registered professional engineers," correct?

6 A. That's a correct reading.

7 Q. Okay. And we can agree that the certification
8 language and the regulation does not contain the word
9 "drawings," correct?

10:58 10 A. Based on the sentence in 802(e)(5) that you
11 just read.

12 Q. Yeah. It doesn't contain the word "drawings,"
13 correct?

14 A. It says "design," yes.

10:58 15 Q. It does not contain the words "PE stamp,"
16 correct?

17 A. That's correct.

18 Q. It does not contain the words "PE seal,"
19 correct?

10:58 20 A. That's correct.

21 Q. It talks about the design of two specific
22 systems, mechanical and electrical, being approved by
23 registered professional engineers, correct?

24 A. Yes, sir.

10:58 25 Q. And it does use the plural, engineers plural,

1 correct?

2 A. Correct.

3 Q. And, sir, have you ever seen this exact same
4 language used in any other regulation?

10:59 5 A. You're asking me have I seen it in any
6 regulation other than MMS offshore regulation?

7 Q. No, sir. I'm asking you if you've seen it in
8 any other regulation anywhere -- anywhere other than
9 this one provision in 250.802(e)(5), this exact
10:59 10 language.

11 A. Sir, this is the -- the '09 edition. This
12 language I know is in the '02 and the '05, '07. It's in
13 multiple versions of -- of this document.

14 Q. But always under 802(e)(5), correct?

11:00 15 A. To the best of my memory, yes, sir.

16 Q. So, my question stands: Other than
17 250.802(e)(5), have you ever seen this exact language
18 anywhere else? First I asked you in any other
19 regulation.

11:00 20 A. I'm sorry. Your question was "this exact
21 language"?

22 Q. Correct.

23 A. As I -- as I am sitting here this morning,
24 there -- this '09 edition is something I -- I haven't
11:02 25 looked at in a while. I thought there was a similar

1 requirement in the 900 series; but I don't see it in
2 this '09 edition, sir.

3 Q. Now I want to broaden the language. So, have
4 you seen this exact same language, this first sentence
11:02 5 we highlighted in 802(e)(5), have you seen that exact
6 language in any other document? I'm not limiting it to
7 regulations.

8 A. I guess it's been in some of the PSS
9 application.

11:02 10 Q. Okay.

11 A. Yeah.

12 Q. And let -- okay. Go ahead. So, P -- it's
13 been in some of the product -- production safety-system
14 applications. Where else?

11:03 15 A. That's what comes to mind right now because
16 there were several iterations of that.

17 Q. Okay. We can agree, sir, that the words of
18 the regulation does not state that any specific drawing
19 or document has to be stamped by a registered PE,
11:03 20 correct?

21 A. Those words are not stated; but to be approved
22 by a registered professional engineer, a stamp is what
23 is used to show that an engineer has directly reviewed
24 and approved that document.

11:04 25 Q. So, the answer to my question is no, the words

1 of the regulation does not state that any specific
2 drawing or document has to be stamped by a registered
3 PE, correct?

4 A. Those words are not there.

11:04 5 Q. And are you aware of anything in writing
6 interpreting these specific words from this specific MMS
7 regulation?

8 A. Ask me that again, please.

9 Q. Yes, sir. Are you aware of anything in
11:04 10 writing interpreting these specific words from this
11 specific MMS regulation?

12 A. Yes, sir. The thing that comes to mind is an
13 E-mail by BP where they're talking about this and
14 they're saying that approval by registered professional
11:04 15 engineers would require a stamp -- excuse me.

16 Q. It says more than that, correct? It says it
17 will require a stamp or require a list of the PEs who
18 were involved, correct?

19 A. I don't -- I can't recite the whole thing to
11:05 20 you. I know I have seen that discussion in an E-mail,
21 sir.

22 Q. Anything else? Is there any other document,
23 any other writing you're aware of interpreting these
24 specific words from this specific MMS regulation?

11:05 25 A. That's the one thing that comes to mind.

1 Q. Okay. Now, with respect to your engineering
2 approvals opinion, let me make sure I understand the
3 methodology that you used in this case.

4 Your methodology was that if a specific
11:05 5 drawing was not stamped by a registered PE, then you
6 concluded that the design was not approved by a PE,
7 correct?

8 A. That's -- that's the only way of determining
9 that, yes, sir.

11:05 10 Q. Now, is there anyone else who you contend
11 interprets the words of this specific regulation the way
12 you do, that it requires all of the drawings to have a
13 PE stamp on them?

14 A. From what I can understand early on with the
11:06 15 BP memo is that that was BP's thought process, also.

16 Q. Which evolved over time, correct? After
17 consulting with experts, you're aware of that?

18 A. Which is typical of BP's normalized
19 deviations.

11:06 20 Q. All right. So, other than the -- again, I
21 think you're referring to the E-mail earlier when you
22 said BP's -- early on BP memo, you're talking about the
23 same E-mail you were talking --

24 A. I'm sorry, E-mail.

11:06 25 Q. Yes.

1 A. That's correct.

2 Q. All right. Anything else? Are you aware
3 of -- is there anyone else who you contend interprets
4 the words of this specific regulation the way you do,
11:06 5 that it requires all the drawings to have a PE stamp on
6 them?

7 A. I'm not aware of anything other than the --
8 the E-mail that I just recited.

9 Q. Did you use any established engineering
11:07 10 methodology to interpret the words of that specific MMS
11 regulation?

12 A. Please say that for me one more time.

13 Q. Sir, did you use any established engineering
14 methodology to interpret the words of this specific
11:07 15 regulation?

16 A. In -- my basis, as I outlined in the report,
17 was that approval by registered professional engineers
18 is something that requires some type of signification by
19 stamp, which is typically used; and that was, I think,
11:07 20 the -- the Texas law at the time Atlantis was being
21 designed because with any system, the documentation is
22 the key. Unless you provide clear, accurate, and
23 detailed documentation, you don't know what was done in
24 the past; and that's one of the fundamentals behind any
11:08 25 process safety program or -- or safety and environmental

1 management program is to have compiled accurate as-built
2 and complete documentation and information pertaining to
3 the equipment, to the technology, and to the design.

4 Q. Okay. Sir, I'm trying to focus on the
11:08 5 methodology that you used to interpret this specific
6 regulation. Let me ask you some detailed questions.

7 No part of your classes at college covered
8 this, correct, this specific MMS regulation?

9 A. Not that I recall back in my college days, no,
11:09 10 sir.

11 Q. And no part of the registered PE test that you
12 took covered this specific regulation, correct?

13 A. That covered this regulation, no, sir.

14 Q. Okay. And there's no textbook, no ANSI --
11:09 15 ANSI code, no NTL, or anything else that you're relying
16 on to support your interpretation of these specific
17 words in this specific regulation, correct?

18 A. None of those documents, sir.

19 Q. You're just using your own subjective
11:09 20 interpretation, correct?

21 A. My -- my professional opinion and my knowledge
22 from my engineering background.

23 Q. And you're aware that MMS disagrees with your
24 interpretation?

11:09 25 A. Yes, sir.

1 Q. Okay. Now, you know that before first oil,
2 MMS reviewed in detail and approved the design of the
3 production safety system for Atlantis, correct?

4 A. That's -- was one of the requirements. They
11:10 5 also, from my understanding, did the inspection for the
6 HORIZON when it was drilling the wells for Atlantis; and
7 it went on to have a problem later.

8 Q. Can you answer my question? You know that
9 before first oil, MMS reviewed in detail and approved
11:10 10 the design of the production safety system for Atlantis,
11 correct?

12 A. Yes, sir.

13 Q. And you wanted to interject about HORIZON.
14 HORIZON didn't have a production safety system, correct?

11:10 15 A. It's a driller.

16 Q. Correct. It's not even a production facility,
17 correct?

18 A. But it was inspected by MMS.

19 Q. Can you answer my question? It wasn't even a
11:10 20 production facility, correct?

21 A. No, sir. It's not a production facility.

22 Q. And it did not have a production safety
23 system, correct?

24 A. That's correct.

11:10 25 Q. Are you aware of the number of meetings and

1 A. That's correct.

2 Q. And both of those letters state that the
3 designs were completed under the supervision of
4 registered professional engineers, correct?

11:28 5 A. That's what the sentences state, yes, sir.

6 Q. And are you aware of the testimony of
7 Mr. Brian Domangue, the U.S. employee at the Department
8 of Interior, who was in charge of the application for
9 the production safety system, that those letters
11:29 10 satisfied the certification requirement in the regs?

11 A. I have not read Mr. Domangue's deposition --

12 Q. Okay.

13 A. -- at this point, sir.

14 Q. All right, sir. Now, other than looking for
11:29 15 PE stamps on the drawings, have you done anything to
16 check the facts on whether the design of those two
17 systems, the electrical and mechanical systems for the
18 production safety system, were done under the
19 supervision of registered PEs?

11:29 20 A. That's the documentation trail that I
21 investigated in regard to the Production Safety System
22 Application drawings that were submitted under cover of
23 these letters. It's looking at each drawing that was
24 submitted as part of this that was available through
11:30 25 Documentum or in production and determining which ones

1 signify that they were approved by registered
2 professional engineers.

3 Q. So the answer to my question is, no, you did
4 not do anything other than look for PE stamps on the
11:30 5 drawings to check the facts and whether the design of
6 the two systems was done under the supervision of
7 registered PEs, correct?

8 A. And, yes, that would be the -- that would be
9 the fact that it was designed under the direction of
11:31 10 registered professional engineers.

11 Q. And you haven't done anything to check into
12 that fact, other than look at the drawings and see if
13 there were PE stamps on them, correct?

14 A. Right. I investigated each drawing.

11:31 15 MR. PERRY: Wait a minute. He said that
16 you haven't done anything except check for PE stamps.
17 Is that all you've done?

18 MR. MACE: Counsel, you'll be entitled to
19 ask questions at the end. I appreciate you not coaching
11:31 20 the witness.

21 Q. (BY MR. MACE) Sir, I want to focus on the
22 platform certification. So we've been talking about the
23 800 series and the production safety system
24 certification. I'm going to switch gears for you now.
11:31 25 We're going to talk about the platform certification and

1 the 900 series. And you've also reviewed as part of
2 your work in this matter Exhibit 6, did you not?

3 (Marked Sawyer Exhibit No. 6.)

4 Q. (BY MR. MACE) I'll show a letter from
11:31 5 Mr. Simon Todd, dated August 9 of 2010. Do you see that
6 letter?

7 A. What you just handed me, yes, sir.

8 Q. Okay. And what I handed you, just so we're
9 clear, is Sawyer Deposition Exhibit 6. It's a letter
11:32 10 from Simon Todd to MMS, dated August 9, 2010, correct?

11 A. That's correct.

12 Q. And it says: "Re: Atlantis platform," right?

13 A. Correct.

14 Q. And the indented language there says that:
11:32 15 "The design of this structure has been certified by a
16 recognized classification society, or a registered civil
17 or structural engineer or equivalent, or a naval
18 architect or marine engineer or equivalent, specializing
19 in the design of offshore structures."

11:32 20 Do you see that language?

21 A. The highlighted language, yes, sir.

22 Q. Okay. And I read it accurately, sir?

23 A. Yes, sir, you did.

24 Q. Okay. Let's go back to Exhibit 3. And if you
11:32 25 could look over in the 900 series, I've got it tabbed

1 for you there to help you find it. But if we can look
2 at 30 CFR 250.905(k). Tell me if I read this language
3 correctly, the reg says: "The design of this structure
4 has been certified by a recognized classification
11:33 5 society, or a registered civil or structural engineer
6 equivalent, or a naval architect or marine engineer or
7 equivalent, specializing in the design of" offshore --
8 "offshore structures," correct?

9 A. Correct.

11:33 10 Q. And again, we can agree that this
11 certification language in the regulation does not
12 contain the word "drawings," correct?

13 A. No, it's just -- there's -- the word "drawing"
14 is not there. It's just implied by the word "design."

11:33 15 Q. And that's your position. But I'm focusing
16 now -- we're going to get to your position in a minute.
17 The words of the regulation do not contain the word
18 "drawing," correct?

19 A. The word "drawing" is not in there, that's
11:34 20 correct.

21 Q. Similarly, the words "PE stamp" are not in the
22 regulation, correct?

23 A. In what you just read, that's correct.

24 Q. Similarly, the words "PE seal" is not in the
11:34 25 words of the regulation, correct?

1 A. Again, what you just read, that's correct.

2 Q. And with regard to this specific regulation,
3 sir, have you ever seen this exact language that's in
4 this regulation in any other document?

11:34 5 A. You're talking other than Exhibit 6 that you
6 just handed me?

7 Q. Yes.

8 A. And again, other versions -- or I'm sorry.
9 Other additions of the MMS reg?

11:34 10 Q. Right. Anything else? Have you -- other than
11 those two, have you ever seen this exact language in
12 either document?

13 A. I don't recall that exact language if we
14 discount those two items.

11:35 15 Q. And, sir, are you aware of anything in writing
16 interpreting these specific words from this specific MMS
17 regulation?

18 A. Say that again, please.

19 Q. Yes, sir. Are you aware of anything in
11:35 20 writing interpreting these specific words from this
21 specific MMS regulation?

22 A. Not that I'm aware of.

23 Q. And, sir, is there anyone else who you contend
24 interprets the words of the regulation the way you do,
11:35 25 that this regulation requires all the drawings to have a

1 PE stamp on them?

2 A. Anyone that accurately practices engineering
3 and upholds that the Texas law as a -- as a registered
4 professional engineer.

11:36 5 Q. Okay. But my question to you was: Are you
6 aware of anyone else who has looked at these specific
7 words in this specific regulation and has interpreted
8 those words the way you do, that this specific
9 regulation requires all the drawings to have a PE stamp
11:36 10 on it?

11 A. I can't name any individual other -- other
12 than myself and what I've stated in my report.

13 Q. And did you use any established engineering
14 methodology to interpret the words of that regulation?

11:36 15 A. The basic premise of the -- the -- that I
16 cited in my report that's required by any PE in the
17 state of Texas.

18 Q. No part of your classes at college covered
19 this specific regulation, right?

11:36 20 A. The particular regulation being cited in a
21 course curriculum, the answer is no. But in ethics each
22 year that is taken at the A&M university, application of
23 what's required by Texas PE is on the test for -- for
24 each year of the -- ethics exams. And so that's a --
11:37 25 that's not a complete college curriculum, but it is

1 taught at a -- at a recognized university each year.

2 Q. Sir, are you saying that the words of this
3 specific regulation were on any of your tests at Texas
4 A&M?

11:37 5 A. No, sir. That's not what I said.

6 Q. All right. And are you saying that the words
7 of this regulation were any part of any of your classes
8 at any of the colleges you went to?

9 A. Not these exact words. I am talking about the
11:37 10 ethical application and the application of what a Texas
11 PE has to do by law.

12 Q. And no part of the registered PE test that you
13 took covered these particular words in this particular
14 regulation, correct?

11:38 15 A. Not this exact language.

16 Q. Okay. And there's no textbook, there's no
17 ANSI code, there's no NTL or anything else that you're
18 relying upon to support your inta- -- interpretation of
19 these specific words and this specific regulation,
11:38 20 correct?

21 A. I can't cite a -- a standard or reg that uses
22 these exact words as you've described it.

23 Q. So again, it's just your own subjective
24 interpretation, correct?

11:38 25 A. Based on my professional engineering standing

1 and my years of engineering experience.

2 Q. And once again, you're aware that the MMS
3 disagrees with your interpretation, correct?

4 A. I am not aware of that. I don't -- searching
11:39 5 back, I don't believe I've -- I've seen an
6 interpretation or -- or anything to that effect from the
7 MMS.

8 Q. All right. But again, you said you haven't
9 read Mr. Domangue's deposition from MMS, correct?

11:39 10 A. That's correct.

11 Q. All right. And, sir, we can agree that for
12 Atlantis, this statement we looked at from Mr. Todd is
13 accurate and correct in Exhibit 6, right, "The design of
14 this structure has been certified by a recognized
11:39 15 classification society, or a registered civil or
16 structural engineer or equivalent, or a naval architect
17 or marine engineer or equivalent, specializing in the
18 design of offshore structures"?

19 That's accurate, right?

11:39 20 A. No, sir, not to -- not based on -- on my
21 opinion in that, as I noted earlier, ABS had told BP
22 that -- that that would be -- approval of the drawings,
23 which is the structural design, is the responsibility of
24 the owner. And through the analysis that -- that I was
11:40 25 able to conduct on the drawings that were produced

1 through this letter from Dr. Todd and in Documentum,
2 there's a -- there's a large portion that have not been
3 certified or approved by -- by engineers.

4 Q. All right. And again, the only thing that you
11:40 5 did to look into the basis of whether what Mr. Todd said
6 was accurate or not was to look at drawings and see if
7 you saw a PE stamp on them, correct?

8 A. PE stamp being one aspect of it. The other
9 aspect being was it as-built, did it conflict with other
11:40 10 drawings.

11 Q. But the sentence we're focused on has nothing
12 to do with as-built, right? We're going to get to that
13 in a minute.

14 A. I understand.

11:40 15 Q. So with regard to what I asked you about, the
16 only thing you did to look into whether that was true or
17 not, what Mr. Todd said in his letter, was that you
18 looked at drawings and saw if they had a PE stamp or not
19 on them, correct?

11:41 20 A. If they had a PE stamp, if they conflicted
21 with other drawings.

22 Q. Okay. Anything else?

23 A. That's -- that's the major aspects.

24 Q. What have you done to -- in terms of analyzing
11:41 25 or reviewing the American Bureau of Shipping design

1 verification reports?

2 A. I've -- I've not done anything.

3 Q. Have you looked at any of those reports?

4 A. Not at this point.

11:41 5 Q. Okay. Let me show you what we're going to
6 mark as Exhibit 7 to your deposition.

7 (Marked Sawyer Exhibit No. 7.)

8 Q. (BY MR. MACE) Sir, we've marked for
9 identification Sawyer Exhibit 7, a Final Report on the
11:41 10 verification of the Hull Structure Design for Atlantis.
11 Do you see that up at the top?

12 A. Yes, sir, I do.

13 Q. It says October '05. Do you see that?

14 A. That's correct.

11:42 15 Q. And it says it's a report for the Minerals
16 Management Service by P.L. Tan, T-A-N, PE. Do you see
17 that?

18 A. Yes, sir, I do.

19 Q. All right. And again -- I didn't see this
11:42 20 listed in your backup materials. Have you ever reviewed
21 this document before I handed it to you?

22 A. I don't recall seeing this document at this
23 time, sir.

24 Q. Okay. Could you turn over to Page 7? I have
11:42 25 it tabbed there for you so you can get there quickly.

1 Under Section 4 -- it's the first tab,
2 sir, Section 4 on Page --

3 A. I'm sorry. I thought you said 7.

4 Q. Well, maybe yours has -- let me see yours just
11:42 5 a second.

6 Well, that's interesting. Okay. Let's
7 start with Page -- Page 4. Let me see yours a second
8 sir?

9 A. (Witness tenders document.)

11:43 10 Q. Yeah. Thank you.

11 All right. Page 4, could you read for the
12 record, so I don't have to hover your shoulder, the
13 sentence that I've highlighted there?

14 A. Just the highlighted part, sir?

11:43 15 Q. Well, start at the beginning of the sentence,
16 please.

17 A. "In its capacity as the design CVA, ABS
18 Americas utilized the applicable standards established
19 by MMS and conducted an independent review of the design
11:43 20 phase of the semisubmersible hull structure in order to
21 verify the adequacy of the structural design."

22 Q. Now, were you aware that ABS had done that
23 prior to reading this document?

24 A. I knew that ABS was the certifying agency, the
11:44 25 CBA for Atlantis.

1 Q. Okay. Let me see that back a second. I
2 apologize. So let's go down under Section 4, "Design
3 review and verification." It's Page 7. Under 4.1, can
4 you read that sentence, please?

11:44 5 A. The highlighted sentence, correct?

6 Q. Yes, sir.

7 A. "The structural design of Atlantis PQ hull
8 structure has been performed in accordance with
9 established engineering principles and was confirmed by
11:44 10 computer analyses utilizing the finite element method."

11 Q. And you're familiar with that finite element
12 method, correct?

13 A. I've heard the term. I'm not a designer, sir.
14 I'm a process safety engineer, as my CV states.

11:45 15 Q. Okay. Let's turn over -- let me see it again,
16 sir, make sure we're on the same page.

17 Over on Page 24 of the report, tell me if
18 I'm accurately reading this under the verification. "In
19 its role as the verification agent, ABS concludes that
11:45 20 the Atlantis PQ semisubmersible hull structure meets the
21 MMS OCS requirements."

22 Did I read that correctly?

23 A. Yes, sir, you did.

24 Q. "The design of the hull structure is supported
11:45 25 by comprehensive structural computer analyses using the

1 specified design conditions and the controlling
2 permanent and functional loads."

3 Did I read that correctly?

4 A. Yes, sir.

11:45 5 Q. "The designer constructed a global finite
6 element model to adequately determine the stress
7 distribution in the hull. At critical locations, finite
8 elements submodels were constructed with a higher level
9 of detail and finer mesh sizes to more accurately
11:45 10 determine the stress distribution."

11 Did I read that correctly?

12 A. Yes, sir.

13 Q. "The individual structural components that
14 comprise the hull structure, including shell plating,
11:46 15 stiffeners, web frames, bulkheads, and decks were
16 analyzed for yielding and buckling resistance."

17 Did I read that correctly?

18 A. You did.

19 Q. "The analyses were conducted using acceptable
11:46 20 engineering theory and proven computer programs."

21 Did I read that correctly?

22 A. Yes, sir.

23 Q. Okay. And you have no information that
24 would -- could challenge the truthfulness of these
11:46 25 statements, correct? Nothing you've seen -- nothing

1 you've seen is inconsistent with what you read here,
2 correct?

3 A. As I sit here this morning, no -- no, sir. I
4 haven't seen anything to that effect.

11:46 5 Q. All right. Now, with regard to ABS, American
6 Bureau of Shipping, were you aware that American Bureau
7 of Shipping had been involved in the classification of
8 more than 50 floating production and/or storage systems
9 prior to doing Atlantis?

11:46 10 A. I know they've been in business for some time,
11 but I -- I don't -- I can't tell you that I know those
12 particular details about ABS.

13 Q. Were you aware that ABS had been approved by
14 MMS because of ABS's unique experience in evaluating
11:47 15 compliance to the regulatory requirements, both of the
16 MMS and of the United States Coast Guard? Were you
17 aware of that?

18 A. No, sir. I -- I don't know what document
19 you're reading from.

11:47 20 Q. Were you aware that the Houston office of
21 American Bureau of Shipping employed approximately 57
22 qualified engineers for reviewing analysis and design in
23 the area of structure, stability, station keeping,
24 marine systems, mechanical and electrical components of
11:47 25 offshore structures?

1 A. No, sir. I mean, none of -- none of that was
2 part of my opinions in my report. And like I said, I --
3 I don't even know what document you're reading from.

4 Q. All right. Did you review any of the other
11:48 5 approximately 10 interim and final reports that ABS
6 completed authored by professional engineers all and
7 submitted to the MMS regarding the design, the
8 installation, and the fabrication of Atlantis?

9 A. No, sir. As I stated earlier, I made a
11:48 10 sincere effort to review as much production as possible,
11 but I have not reviewed that aspect of it.

12 Q. All right. So looking back at Exhibit 6, I
13 think it was, with regard to Mr. Todd's statement that
14 we had highlighted -- so were on the same on the page,
11:48 15 the statement in Exhibit 6 that: "The design of the
16 structure has been certified by a recognized
17 classification society, or a registered civil or
18 structural engineer or equivalent, or a naval architect
19 or marine engineer or equivalent, specializing in the
11:49 20 design of offshore structures."

21 Do you claim that that statement that
22 Mr. Todd made is not accurate?

23 A. Based on the -- based on the drawings that
24 I've reviewed and the production that I've seen, that
11:49 25 seems to be fraudulent.

1 haven't -- I haven't com- -- I haven't done any of that
2 at this point.

3 Q. Okay. Did you know that MMS had reviewed in
4 detail and approved the design of the structure of the
11:52 5 platform for Atlantis?

6 A. I have not -- or I do not recall seeing
7 details of anything to that effect.

8 Q. You didn't give that any weight in your report
9 or your opinions, correct?

11:52 10 A. Because I haven't seen it, sir. I don't know
11 that it has been produced.

12 Q. Okay. And are you aware of the number of
13 meetings and inspections that MMS conducted over the
14 design of the structure of the platform for Atlantis and
11:52 15 the fabrication before approving it?

16 A. I'm not aware of the number, no, sir.

17 Q. Are you aware of the number of punch list
18 items raised by MMS that required BP to address before
19 approving the platform application for Atlantis?

11:53 20 A. No, sir.

21 Q. You do acknowledge that ABS, American Bureau
22 of Shipping, was a recognized classification society,
23 correct?

24 A. Yes, sir. They're a recognized classification
11:53 25 society.

1 the sentence after the one that's highlighted reads:

2 "The certified design and as-built plans and
3 specifications will be on file at (give location.)

4 Do you see that language?

11:58 5 A. Yes, sir, I do.

6 Q. And nowhere in that language does it say that
7 the words "as-built" have to appear on a drawing for it
8 to be considered an as-built drawing, correct?

9 A. It doesn't simplify it to -- to that ex- --
11:58 10 extreme. The regulation would be very extensive if it
11 had to go into details like that. The only way of
12 signifying something from a documentation standpoint as
13 as-built is if it's actually marked "as-built."

14 Q. All right. Let's focus on my question. We
11:58 15 can agree that the words of the specific regulation does
16 not say that an as-built drawing has to have the words
17 "as-built" on it, correct?

18 A. It says: "The certified design and as-built
19 plans and specifications will be on file at (give
11:59 20 location).

21 Q. Okay. And it doesn't say anything about
22 having to have the words "as-built" on it, correct?

23 A. It doesn't give that detailed of instruction
24 as to how to do it, no.

11:59 25 Q. Correct. So the answer to my question is, I

1 am correct, the words of the regulation don't say that
2 the words "as-built" have to be on any document,
3 correct?

4 A. No. The -- that's the complete sentence. Is
11:59 5 that --

6 Q. Okay. And even the words "as-built" as it
7 appears in the regulation, they're not in quotes,
8 correct?

9 A. The whole -- the whole thing is in quotes.

11:59 10 Q. Well, within that sentence. What do you mean?
11 Where do you see some quotation marks? At the be- --

12 A. Well, I --

13 Q. At the beginning of the whole paragraph.

14 A. Right.

12:00 15 Q. But the words, those two words, "as-built,"
16 are not in quotes, right? There's no quotes around the
17 words, "as-built"?

18 A. For the words, "as-built"?

19 Q. Correct.

12:00 20 A. That's correct.

21 Q. And, sir, have you seen this exact language
22 that appears in this exact regulation in any other
23 document?

24 A. Well, it's listed -- it's listed in the MMS
12:00 25 regs.

1 Q. This exact language?

2 A. About as-built plans and specifications?

3 Q. Yes, sir.

4 A. Yeah, it's over -- yeah, it -- it -- at .903.

12:01 5 Q. All right. Can you show me, please, what
6 you're referencing? Thank you.

7 A. I'm sorry, if you -- 903(a)(1).

8 Q. All right. So --

9 A. I'm looking at it upside down.

12:01 10 Q. Thank you.

11 All right. So you're pointing to
12 what's -- the page numbers of the document are 397. So
13 250.903(a)(1): "You must compile, retain and make
14 available to MMS representatives for the functional life
12:01 15 of all platforms the as-built drawings," right? That's
16 what you were pointing to?

17 A. Yes, sir.

18 Q. So I'm going to underline that in blue. But
19 again, that -- the words, "as-built," there are not in
12:01 20 quotes, correct?

21 A. They're not in quotation marks, that's
22 correct.

23 Q. And nowhere in that regulation that you're
24 pointing to does it say that an as-built drawing has to
12:02 25 have the words, "as-built," on it, correct?

1 A. It doesn't give that detailed of instruction,
2 no, sir.

3 Q. And is there any other federal regulation that
4 you're saying applies to Atlantis that deals with
12:02 5 as-built drawings?

6 A. Again, with the understanding that there's --
7 as we talked about previously, there's several versions
8 of -- of this document --

9 Q. Yes.

12:02 10 A. -- that has that language.

11 Q. Thank you, sir.

12 A. Based on memory, that's the as-built portions
13 of it, is in the 900 section.

14 Q. So you pointed me to two provisions in 903 and
12:03 15 in 905(k), correct?

16 A. For the --

17 Q. As-built.

18 A. For the as-built on the 2009 edition of this.

19 Q. And with respect to those two provisions
12:03 20 you've pointed me to under 903(a)(1) and under 905(k),
21 have you seen that exact language in any other document?

22 A. Well, the BP --

23 Q. BP's letters to the MMS, all right.

24 A. BP's letters to MMS.

12:03 25 Q. And then, you've told already me other

1 versions of the same provisions. All right. So we have
2 those two. Anything else?

3 A. Other than that would be the BP internal
4 standards that say that they will have as -- final
12:04 5 as-built drawings and they'll be marked "as-built."

6 Q. And you're aware, sir, that those don't --
7 those don't pertain to these specific regulations,
8 correct?

9 A. Well, sure, they do. Because that's the only
12:04 10 reason BP would have made those regulations for Atlantis
11 is because of this.

12 Q. Sir, are you aware of anything in writing that
13 is in -- that interprets these specific words from
14 903(a)(1) and from 905(k)?

12:04 15 A. Other than the various editions, the BP
16 letters, and the BP internal documents, no, sir.

17 Q. And is there anyone else who you contend
18 interprets the words of this -- this specific
19 regulation, 903(a)(1) and 905(k), the way you do, that
12:05 20 it requires all the drawings to have the words,
21 "as-built," on them?

22 A. Based on the internal procedures that BP has
23 developed for Atlantis, BP would agree with me.

24 Q. Anything else, sir? Anyone else who you
12:05 25 contend interprets these words the same way you do, that

1 they require the words, "as-built," to appear on the
2 drawing?

3 A. Myself and BP is the only two.

4 Q. All right. And, sir, in terms of your
12:05 5 methodology, did you use any established engineering
6 methodology to interpret the words of these two
7 regulations with regard to as-built?

8 A. To interpret the -- again, I'm not sure I
9 understood the question.

12:06 10 Q. To interpret those words -- and you're saying
11 those words mean that the drawings have to be stamped
12 "as-built" to be an as-built -- did you use any
13 established engineering methodology to interpret those
14 words?

12:06 15 A. I don't think you need engineering methodology
16 to do that, sir.

17 Q. And again, no part of your college classes
18 covered this, correct? I think you already established
19 that your college classes didn't cover these M- -- these
12:06 20 specific MMS regulations, right?

21 A. They didn't call out these particular MMS
22 regulations.

23 Q. And no part of your registered PE test that
24 you took covered this, correct?

12:06 25 A. Nothing other than the teaching engineers to

1 A. Not correctly. Not in accordance with the
2 law.

3 Q. Mr. Sawyer, you have not personally attempted
4 to compare any Atlantis drawings to the actual as-built
12:09 5 physical condition of the Atlantis facility, correct?

6 A. And by -- by that, you mean conduct some type
7 of physical inspection or walk-through --

8 Q. Yes, sir.

9 A. -- so to speak?

12:09 10 Q. Yes, sir.

11 A. No, sir, I haven't.

12 Q. And, sir, you cannot point to a single drawing
13 that the operations people at Atlantis needed and relied
14 upon that did not show the accurate as-built condition,
12:09 15 correct?

16 A. There's a multitude of them in the production
17 that has been provided thus far.

18 Q. So to the extent you believe there's any such,
19 they would be in your report?

12:09 20 A. That I have seen at this point, yes, sir.

21 Q. Okay. And is there a specific one that comes
22 to mind, sir, as an example of a drawing that the
23 operations people at Atlantis needed and relied upon
24 that did not show the accurate as-built condition?

12:10 25 A. Not one that comes to mind as I'm sitting

1 here.

2 Q. Okay. And the fact is that you've never
3 inspected any deepwater platform, correct?

4 A. No, that's not my --

12:10 5 Q. Not your area?

6 A. That's right.

7 Q. Okay. Sir, can we agree that, all other
8 things being equal, if the design is a good design and
9 follows good engineering practices and is appropriate
12:10 10 for the application, then the resulting project will be
11 just as safe and protective of human health and the
12 environment, regardless of whether a PE stamp appears on
13 all the drawings?

14 A. For it -- for it to have had the
12:11 15 qualifications that -- that you cited in your question,
16 it would have had a PE stamp on it, sir.

17 Q. All right. But in my example -- and you have
18 to accept the hypo they way I give it to you or you can
19 tell me you have no answer. But my -- I'm entitled to
12:11 20 make hypos the way I want.

21 So my hypothetical I'm asking you, sir:
22 It's a good design, it follows good engineering
23 practices, it's appropriate for the application. In
24 that example, then the project is going to be just as
12:11 25 safe and protective of human health and the environment,

1 Q. Okay. And, sir, prior to your work on this
2 case, have you ever given any opinions on the meaning of
3 the Texas Engineering Practices Act before?

4 A. Opinions on the -- on the meaning?

12:17 5 Q. Yes, sir.

6 A. Nothing comes to mind this morning, sir.

7 Q. We can agree that Atlantis is more than 150
8 miles off the coast in federal waters in the Gulf of
9 Mexico and not within the geographic jurisdiction of
10 Texas, Louisiana, or any other state, correct?

11 A. I would agree with that.

12 Q. And isn't it a fact that the Texas Engineering
13 Practices Act says that an engineer is not required to
14 use a seal if the project is to be constructed or used
15 in another state or country?

16 A. But the Gulf of Mexico is not another state or
17 country, sir.

18 Q. We can agree that Atlantis is not being used
19 in Texas, correct?

12:18 20 A. It was -- it was designed and fabri- --
21 designed and built, integrated in Texas, sir.

22 Q. You're saying that for portions of it?

23 A. For major portions of it, yes, sir. It was my
24 understanding Ingle- -- Ingleside, Corpus Christi area,
12:18 25 is the integration site.

1 today and the past for a few minutes. And focusing on
2 the real world and what has actually happened to date,
3 nowhere in your report do you contend that there has
4 been any actual personal injuries or environmental
13:52 5 disaster that has happened because of Atlantis, correct?

6 A. In my report of October 2011, I didn't address
7 any of those issues.

8 Q. Right. And -- and your report of 2011, you
9 understood your obligation to include all of the
13:52 10 opinions you were going to give at trial in that report,
11 right?

12 A. Based on the information I had at hand that --
13 on hand at that time, which I provided, I think, in
14 Appendix B or something to that extent, yes, sir.

13:52 15 Q. So to confirm, you do not claim that any
16 catastrophic failure has occurred in the more than four
17 years that Atlantis has been operating, right?

18 A. I'm not aware of a catastrophic event that has
19 occurred to the point of preparing my report.

13:53 20 Q. And you did not claim that there's been any
21 significant damage to human health or the environment
22 from the Atlantis facility, correct?

23 A. In my report, I didn't address any such issue.

24 Q. Okay. Have you ever heard the phrase, "The
13:53 25 proof is in the pudding"?

1 that in the future, "catastrophic failure is virtually
2 certain," at Atlantis.

3 That's a very alarming statement,
4 Mr. Sawyer. So I wanted to ask you: When is that
14:00 5 catastrophic failure going to occur?

6 A. Well, in -- as I said in either the report
7 you're quoting or -- or this report, it's -- it's
8 something that cannot assign a time and date to. The
9 reason that statement is -- is valid, from my
14:00 10 engineering experience and opinion, is that we've had
11 accumulative affect of issues with Atlantis that start
12 with I mean- -- improper engineering, with the
13 documents, control issues, with subsea. You've had
14 drawing conflicts. There's E-mails where -- there's one
14:01 15 in -- that I call portions of where they were trying to
16 figure out which electrical flying leads go with which
17 trees, and they couldn't tell by looking at the
18 drawings. There are logic drawings that I've reviewed
19 that conflict with other logic drawings.

14:01 20 And so my basis for -- for that, sir, is
21 that when you list those and other cumulative effects,
22 you begin to approach a level of risk that's in the
23 unacceptable realm.

24 Q. Are you finished?

14:01 25 A. Yes, sir.

1 Q. Okay. Sir, isn't it a fact that none of these
2 things you've listed -- document issues, controls issues
3 with the subsea, other E-mails you've seen and things,
4 drawings that you say conflict -- none of those have
14:02 5 prevented Atlantis from safely shutting down, correct?

6 A. In singular form and -- well, first of all,
7 let me -- I'm sorry, let me back up.

8 From -- prevented Atlantis from shutting
9 down, no, sir. It's my understanding from some of the
14:02 10 E-mails, that failures of the turbines, and then there
11 was failure of a cabinet overheating with some of the
12 electronic modules, did result in shutdowns. To what
13 extent, I can't recall from memory.

14 Q. And what you're saying, sir, is there were a
14:03 15 few -- a couple of events that resulted in shutdowns.
16 But that just shows the system is working the way it's
17 supposed to. It was able to safely shut down, correct?

18 A. No. No, sir. That just shows that there is a
19 level of improper engineering that was done that
14:03 20 actually is now producing some failures, and we don't
21 know how many latent failures may still be out there.
22 At this point in time, from the information that I've
23 reviewed as of the writing of my report, I have not
24 identified any single event that has resulted in a --
14:04 25 a -- what you -- what you termed earlier as a

1 catastrophic or serious safety environmental --

2 Q. I was using your --

3 A. -- incident.

4 Q. -- your term.

14:04 5 A. I'm sorry. I'm sorry. As a -- as a
6 catastrophic or serious safety environmental threat, any
7 single event occurring as of yet.

8 Q. Okay. Are you done?

9 A. Yes, sir.

14:04 10 Q. Okay. None of these things that you
11 mention -- and you were trying to give us a list of them
12 with the electrical fine leads and document issues and
13 controls issues subsea -- all the things you want to
14 talk about, none of those have affected the ability to
14:04 15 close the boarding valve, correct?

16 A. The -- the boarding valves up on topsides? I
17 don't know that I can answer that, sir.

18 Q. Okay. To the best of your knowledge, none of
19 them have impacted the ability to close the boarding
14:04 20 valve?

21 A. That I'm aware of at this point, I -- without
22 researching it further, I can't say that -- I can't
23 affirm that.

24 Q. You can't say one way or the other?

14:05 25 A. That's correct.

1 Q. All right. Same answer true for -- sir, for
2 the two USVs, right, that none of the things that you
3 listed a minute ago have any effect on the ability to
4 close the two USVs?

14:05 5 A. The underwater safety valves -- it all has
6 potential, but I don't know of an event that has
7 occurred that has been -- the information has been
8 produced, but the potential is there.

9 Q. Similarly, sir, none of the things that you
14:05 10 talk about have any effect on the ability to close the
11 surface controlled subsurface safety valve, correct?

12 A. Again, sir, it would be the same -- same
13 response. As of this time, the potential is still
14 there, but I can't cite an incident that has -- report
14:06 15 that's been produced or information that's been produced
16 thus far that provides that type of detail.

17 Q. So back to the question where we started:
18 When is this catastrophic failure that you talk about
19 going to occur? You don't know.

14:06 20 A. No one knows, sir.

21 Q. All right. You would have to guess or
22 speculate on that?

23 A. And that's one thing that engineers should
24 never do, is guess and speculate. And that's why I -- I
14:06 25 said earlier that because of the cumulative effects of

1 the various things that -- that I have discovered on
2 Atlantis is my basis for that statement.

3 Q. But the fact we're trying to drill down to now
4 is that you have no idea when that's going to occur?

14:07 5 A. I cannot predict when a latent failure is
6 going to occur.

7 Q. Similarly, you -- you can't say what will
8 happen, right?

9 A. From a process safety engineering standpoint,
14:07 10 it's -- it's my job to be able to assess worst-case
11 conditions and to be able to assess most reasonable
12 scenario. And based on, again, the cumulative effects
13 that we've discussed, there is a potential that is -- is
14 unacceptable so far as the degree of operational risk
14:07 15 for Atlantis.

16 Q. You're referring back to the cumulative
17 effects, and we just established that none of those
18 cumulative effects, to the best of your knowledge, have
19 had any impact on the ability to close the boarding
14:08 20 valve, the two USVs, or the surface controlled
21 subsurface safety valve, right?

22 A. Taking each one from a singular aspect, I
23 basically said that I know of no information that's been
24 provided that confirms that.

14:08 25 Q. Yeah. Singular, together, take any two, take

1 any three, take all of them together, none of them
2 together have impacted the ability to close the boarding
3 valve, the two USVs, and the surface -- surface
4 controlled subsurface safety valve, correct?

14:08 5 A. Not that I can recite to you this afternoon
6 based on memory.

7 Q. So in terms of this catastrophic failure that
8 you say is virtually certain to occur -- and those are
9 your words, sir -- you can't tell us when and you can't
14:08 10 tell us what. You can't tell us what's going to happen,
11 right?

12 A. I cannot tell you when, nor can anyone.

13 Q. And you can't tell us what's going to happen.
14 You would have to guess or speculate at that?

14:09 15 A. There could be a range of events.

16 Q. Right.

17 A. And those could range -- again, taking worst-
18 case, a catastrophic environmental catastrophe, along
19 with harm to workers on board the facility.

14:09 20 Q. But in terms of what -- and you've said a
21 catastrophic failure is virtually certain to occur.
22 What is that catastrophic failure that is virtually
23 certain to occur?

24 A. And that's what I've said in my report, is
14:09 25 that because -- because of the latent failures that have

1 not occurred or can occur, no one knows that.

2 Q. Okay. And in terms of what specific component
3 part is going to fail, you don't know that, either?

4 A. No, sir. You're -- you can't look at it and
14:09 5 say -- and by the way, I wish that was possible, to look
6 at it and say, you know, we -- we're sure this component
7 is going to fail. The basis of doing a hazard analysis
8 and having a process safety environmental management
9 program is to make assessments and make engineering
14:10 10 judgments so far as what the maximum allowable working
11 pressure is needed, what could be the most foreseeable
12 catastrophic incident that might occur. And the goal
13 for any system, whether we're talking offshore platform
14 or industrial facility on -- onshore, is to try to
14:10 15 identify as most of those reasonable events as possible
16 and ensure that your design is robust enough to be able
17 to either -- either withstand those or to have enough
18 instrumentation or system such that if such an event
19 begins to occur, it quickly identifies it and mitigates
14:11 20 its effects. And it's what we -- we touched on maybe
21 earlier this morning, is that that's some of the basis
22 for the layer of protection analyses.

23 Q. So what I'm hearing you say, Mr. Sawyer, is
24 that you can only guess or speculate when any
14:11 25 catastrophic failure is going to occur, correct?

1 A. And --

2 Q. Can you answer that question?

3 A. -- because -- no, I'm not going to guess. And

4 I --

14:11 5 Q. So --

6 A. I know you want a "yes" or "no" answer.

7 Q. Let me rephrase it, then.

8 MR. PERRY: Excuse me, counsel.

9 Q. (BY MR. MACE) I'm withdrawing that question
14:11 10 and putting a new one to you, sir.

11 So without guessing or speculating, you
12 can't say when any catastrophic failure is going to
13 occur, correct?

14 A. It would have to be done through a rigorous
14:12 15 safety case or risk assessment. And with what I've done
16 thus far, I -- I can't give you a -- a particular time
17 limit.

18 Q. And, similarly, without guessing or
19 speculating, you can't say what is going to happen?

14:12 20 A. I -- I would have the same answer there, sir,
21 is that I wouldn't guess or speculate. It would have to
22 be done with the safety case study or risk assessment.

23 Q. Which you haven't done at this point?

24 A. No, sir, I have not done that at this point.

14:12 25 Q. And without guessing or speculating you can't

1 say how, whatever it is, is going to fail; how it's
2 going to fail; or what the cause of that is going to be?
3 Same answer?

14:12 4 A. It would be the -- my -- my same response,
5 sir.

6 Q. And in terms of why the many redundant safety
7 systems and shutoff vales won't be able to stop the flow
8 of oil and gas if something happens -- if we go ahead
9 and speculate something is going to happen in the
14:12 10 future, you're not telling us what, why won't the many
11 redundant safety systems and shutoff valves be able to
12 stop the flow of the oil and gas?

13 A. And with that question, you're addressing the
14 subsea valves, correct?

14:13 15 Q. I'm addressing everything, sir. Because you
16 and I went through some of the subsea valves that can
17 stop the flow. But you recognize there's additional
18 ones on topsides, right?

19 A. Depending upon where you may have a problem.

14:13 20 Q. Right.

21 A. I mean, you would have to segment --

22 Q. Right.

23 A. -- things.

24 Q. And you're not telling us where we're going to
14:13 25 have a problem, right?

1 A. Because it's the same -- the same response I
2 gave earlier, is at this point, no one is going to be
3 able to do that.

4 Q. So depending what happens, which you say you
14:13 5 don't know, in many instances the redundant safety
6 systems and shutoff valves should be able to stop the
7 flow of the oil and gas, correct?

8 A. If everything was designed correctly and works
9 correctly, that is the intent for having redundancies or
14:14 10 layers of protection, is that if one fails, you hope the
11 other catches it.

12 Q. Now, two and a half years ago, sir, in your
13 May of '09 report, you said the time was of the essence
14 in avoiding a disaster. Now, in your October 14 report,
14:14 15 2011, you say a catastrophic failure is virtually
16 certain to occur. Is anything going to happen before
17 March of 2012?

18 A. In regard to Atlantis?

19 Q. Yeah.

14:14 20 A. Sir, I -- again, I can't give you a particular
21 date, no, sir.

22 Q. Can you give me a percentage of likelihood
23 from zero percent to 100 percent that we're going to
24 have your catastrophic failure before March of 2012?

14:14 25 A. In -- again, I -- I can't give you a -- a time

1 line.

2 Q. And you can't give me a percentage of
3 likelihood?

4 A. At this point, no, sir.

14:15 5 Q. And if we extended it from March of 2012 to
6 over the next year, to December of 2012, again you can't
7 give me any percentage of likelihood between zero
8 percent and 100 percent that your catastrophic failure
9 is going to occur, correct?

14:15 10 A. And if you're talking -- if you're talking
11 percentages, it's going to be the same for tomorrow as
12 it is for two years out.

13 Q. And what is that percentage?

14 A. I'm telling you -- as I -- as I answered
14:15 15 earlier, I've not based things on a percentage. I've
16 simply said that based on the information that I've
17 reviewed at the time of my latest report, because of the
18 cumulative issues that have been identified on Atlantis,
19 it puts you in an area where you're now at a level of
14:16 20 risk that's totally unacceptable that could have been
21 reduced to an acceptable level through the use of proper
22 engineering.

23 Q. So in terms of the likelihood on this
24 percentage scale, you've not put any percentage on it?

14:16 25 A. No, sir. Not a -- not a quantifiable

1 percentage.

2 Q. And in terms of the methodology that you used,
3 do you claim that you used some type of accepted
4 methodology to predict the likelihood of future damage?

14:16 5 A. It's based on my engineering experience as a
6 process safety engineer.

7 Q. But in terms of any type of SME code, ANSI
8 code, some other accepted engineering practice or
9 methodology, you didn't apply anything like that?

14:16 10 A. No, sir. The way you're asking me is if I
11 looked at failure mechanisms of various systems using
12 API or ANSI or ASME failure specifications, no, I
13 haven't done anything to be that detailed.

14 Q. All right. Let me switch topics. I didn't
14:17 15 see anything in your report. But to confirm, you did
16 not do anything to look into what resources the MMS used
17 to look into Mr. Abbott's allegations, correct?

18 A. What resources were used in their
19 investigation?

14:17 20 Q. Right. You're aware that Mr. -- Mr. Sawyer,
21 you're aware that BOEMRE, we're talking about -- we're
22 calling them MMS?

23 A. We agreed up front.

24 Q. Okay. So MMS looked into Mr. Abbott's
14:17 25 allegation; you're aware of that?

1 facility's production safety systems. These inspections
2 included review of the surface and subsea safety system
3 function logic." And then it says: "During the course
4 of these preproduction inspections, MMS engineers and
14:29 5 inspectors documented areas of concern and required BP
6 to take corrective actions prior to first oil."

7 Do you see those statements?

8 A. I see where you read, yes, sir.

9 Q. You don't have any basis to disagree with
14:29 10 those statements, do you?

11 A. I don't disagree that BOEMRE/MMS likely went
12 out and their inspectors did walk-throughs. And we
13 talked about the punch list earlier. The issue is that
14 that's only what we can see, and that doesn't involve
14:29 15 any of the detailed engineering.

16 Q. Now, over on the next page, top of Page 21,
17 the last sentence in that paragraph is that: "The MMS
18 inspections conducted in 2008, 2009 and 2010 verified
19 that the production safety systems were installed
14:30 20 correctly as approved and that these systems functioned
21 properly."

22 You don't have any basis to disagree with
23 that, do you?

24 A. Sir, I haven't, to my knowledge, seen those
14:30 25 inspections.

1 A. The second paragraph or second --

2 Q. (BY MR. MACE) Oh, no, sir, the second, first
3 paragraph, that MMS "has conducted a thorough
4 investigation to determine whether there was any
14:42 5 evidence that supported Mr. Abbott's allegations about
6 unsafe operations on the Atlantis production facility"
7 MMS "found no such evidence."

8 Do you see that language?

9 A. Yes, sir, I do.

14:42 10 Q. And do you have any basis to disagree with
11 that?

12 A. The basis I would present would be in my
13 report, sir.

14 Q. Has the methodology that you used to interpret
14:42 15 the specific MMS regulations that we have discussed ever
16 been published in any peer-reviewed paper? I think you
17 already told me it hadn't.

18 A. Meaning had I published anything in regard to
19 my interpretation?

14:43 20 Q. Have you or anybody? You've never seen any
21 peer-reviewed paper that looked at how to interpret the
22 MMS regulations, correct?

23 A. That's correct.

24 Q. Okay. And the same thing with respect to your
14:43 25 prediction that a future catastrophe is virtually

1 certain to happen, there's no methodology used to arrive
2 at that opinion that has been published in any peer-
3 reviewed paper, correct?

4 A. Not that's been published in a peer-review
14:43 5 paper, that's correct.

6 Q. Similarly, there are no standards controlling
7 the methodology or technique that you used to arrive at
8 your opinions in this case, correct?

9 A. Okay. Repeat that for me, because I think --

14:43 10 Q. Yeah. As we went through each of your
11 opinions, I asked you about are you aware of any ANSI
12 standards or any other standards or written provisions
13 that support the methodology that you used to arrive at
14 the opinion, and I didn't hear any. So I was just
14:44 15 trying to confirm that. There's no standards that
16 you're aware of controlling the methodology that you
17 used to arrive at your opinions in this case?

18 A. Other than what I outlined in my report so far
19 as what's required by Texas law for professional
14:44 20 engineers and using the fundamental process safety
21 engineering expertise that I've developed over the
22 years.

23 Q. And, sir, you've never measured the actual or
24 potential rate of air for the methodology that you used
14:44 25 to arrive at your opinions in this case?

1 A. The only way you would be able to develop a --
2 a methodology as -- as you've described is someone
3 prepares a safety case or a risk assessment and you look
4 at the deviation factors, which is a -- more of a
14:45 5 quantifiable aspect. And -- and that has not been done
6 at this point.

7 Q. Okay. So you have not done that?

8 A. Not at this point, sir.

9 Q. And, sir, you have never done any
14:45 10 nonlitigation work involving these specific MMS
11 regulations that we've talked about today, correct?

12 A. Other than what we talked about this morning.

13 Q. Well, you said that you thought you may have
14 looked at some parts of 14J -- I'm sorry, it was 14C, in
14:45 15 connection with a chemical -- onshore chemical plant.
16 Is that what you were trying to make exception for?

17 A. Right. When -- when we talked this morning
18 and -- maybe I -- did I understand your question?

19 Q. Yeah, let me ask it again, please. Sorry.

14:46 20 So with respect to the 800 series and the
21 900 series of these MMS regulations that we talked about
22 today, those particular ones on the production safety
23 system in the 800 series and the platform on the 900
24 series, I thought I understood you this morning to say
14:46 25 that you had never looked at those, even read them,

1 before -- to the best of your knowledge, before you got
2 involved in this current case, the Abbott case, correct?

3 A. Yes. If we're talking about the -- the actual
4 regs, I don't recall going somewhere and looking that
14:46 5 up. The only part I do recall is the 14C that we were
6 talking about earlier.

7 Q. Yeah. Right. Okay. Good. So in terms of
8 these specific regs and particularly these
9 certifications with regard to engineering that was done
14:46 10 on the production safety system and engineering that was
11 done on the structure of the platform and with respect
12 to as-built on the platform, you have never done any
13 nonlitigation work involving those specific provisions,
14 correct?

14:47 15 A. I -- right. I've never provided a Production
16 Safety System Application.

17 Q. Or a hull or structure application?

18 A. That's correct.

19 MR. MACE: Okay. We'd better break for
14:47 20 the tape before she hits me.

21 THE VIDEOGRAPHER: Off the record at
22 2:47 p.m., ending Tape 4.

23 (Break from 2:47 p.m. to 2:56 p.m.)

24 THE VIDEOGRAPHER: On the record at
14:56 25 2:56 p.m., beginning Tape 5.

1 Q. Has any of that included confidential
2 information?

3 A. No, sir.

4 Q. Again, who is it? Who are we talking about?

15:44 5 A. I'd have to go back to my office and get a
6 list. There's only maybe three or four people.

7 Q. All right. That's easy enough to give to
8 Mr. Perry?

9 A. Yes, sir.

15:45 10 Q. And you're willing to do that, right?

11 A. I am.

12 Q. In your work in this case, the Atlantis Abbott
13 case, have you used any other materials from any other
14 case files?

15:45 15 A. No, sir. I don't believe so.

16 Q. Okay. Have you met in person with any fact
17 witnesses for purposes of this case?

18 A. No, sir.

19 Q. Have you spoken on the phone with any fact
15:45 20 witnesses?

21 A. No, sir.

22 Q. Have you read the transcript of any
23 depositions?

24 A. I've read some -- some depositions.

15:45 25 Q. Which ones?

1 THE STATE OF TEXAS)

2 COUNTY OF HARRIS)

3
4
5
6 I, DONNA L. GARZA, a Certified Shorthand Reporter in
7 and for the State of Texas, do hereby certify to the
8 following:

9 That the witness, MICHAEL E. SAWYER, was duly sworn
10 by the officer and that the transcript of the oral
11 deposition is a true record of the testimony given by
12 the witness;

13 That the deposition transcript was submitted on
14 _____, 2011, to the witness, or to the
15 attorney for the witness, for examination, signature,
16 and return to Worldwide Court Reporters, Inc., by
17 _____, 2011.

18 That the amount of time used by each party at the
19 deposition is as follows:

20 Mr. Damond R. Mace - 6 hours, 22 minutes

21 Mr. David L. Perry - 58 minutes

22 I further certify that I am neither counsel for,
23 related to, nor employed by any of the parties or
24 attorneys in the action in which this proceeding was
25 taken, and further that I am not financially or

otherwise interested in the outcome of the action.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, on this, the
_____ day of December, 2011.



Donna Garza

DONNA L. GARZA, TEXAS CSR NO. 4785

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